

# SPCC Additional Issues

Oil Program Staff

March 31, 2004

These slides have been edited after the  
March 31, 2004 meeting

# Issues Include:

## Morning Session:

- ◆ Loading Rack
- ◆ Motive Power
- ◆ Oil/Water Separators

## Afternoon Session:

- ◆ Integrity Testing
- ◆ Mobile/Portable Containers
- ◆ Process Vessels
- ◆ Piping
- ◆ Containment

For editorial purposes, the rule citations within are limited to those in Subpart A and B (petroleum and non-petroleum oils), however, counterparts in Subpart C may apply for Animal Fats and Vegetable Oils.

# Loading Racks

◆ Issue: The definition and scope of loading rack requirements under §112.7(h).

◆ EPA Response:

- Compliance with the requirements of §112.7(h) for traditional “loading racks” will continue to be evaluated by EPA inspectors.
- All other transfer stations (including certain unloading racks) we will consider proposed rulemaking to clarify the applicability of the rack requirements, however, they remain subject to the general containment provisions of §112.7(c).

# Loading Racks (cont.)

## Applicable Rule Provisions:

- ◆ **§112.7(c)** Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.
- ◆ **§112.7(h)** Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).
  - **(1)**Where loading/unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

# Loading Racks Summary

- ◆ Traditional loading racks subject to 112.7(h)
- ◆ Propose rulemaking for all other transfers to clarify the applicability of the rack requirements and they remain subject to the general containment provisions of §112.7(c).

# Motive Power

- ◆ Issue: Applicability of Motive Power
- ◆ EPA Response: We will consider proposed rulemaking to exempt bulk oil storage containers on a vehicle used exclusively to provide fuel for propulsion or other movement of the same vehicle and may consider exemptions for equipment on the same vehicle where oil is used for operational purposes ("mixed-use vehicles"), such as a gas tank for a car and its associated oil, or a fuel tank for a tractor and its associated hydraulic equipment.

# Motive Power (cont.)

## **Applicable Rule Provisions:**

- ◆ §112.1 General Applicability
- ◆ Appendix A to Part 112. Memorandum of Understanding Between the Secretary of Transportation and the Administrator of the Environmental Protection Agency.

# Oil/Water Separators

- ◆ Issue: Clarification needed on how the rule applies to oil/water separators.
  - Statements in the preamble appear contradictory
- ◆ EPA Response: Clarification/proposed rulemaking based on type of separator and “intent”



# Oil/Water Separators (cont.)

## Applicable Rule Provisions:

- ◆ **§112.1(d)** Except as provided in paragraph (f) of this section, this part does not apply to:
  - ... (6) Any facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of this part. The production, recovery, or recycling of oil is not wastewater treatment for purposes of this paragraph.
- ◆ **§112.2** Bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.
- ◆ **§112.2** Storage capacity of a container means the shell capacity of the container.

# Oil/Water Separators (cont.)

## Applicable Rule Provisions:

- ◆ **§112.9(c)(2)** Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

# Oil/Water Separators (cont.)

Intent/Design of Separator:

- ◆ Production separation
- ◆ Wastewater Treatment (exclusively)
  - Inherent Storage
  - No inherent storage
- ◆ Secondary Containment

# Oil/Water Separators (cont.)

Production Separators	Wastewater Treatment	Secondary Containment
These are bulk storage containers subject to the provisions of §112.9(c) and they count toward the overall storage capacity at the facility.	<i>Inherent Storage:</i> <b>Proposed rule changes</b> for the following: <ul style="list-style-type: none"><li>Oil storage compartment is subject to rule provisions. (67 FR 47068)</li></ul>	<i>Inherent Storage:</i> <ul style="list-style-type: none"><li>Subject to applicable 2<sup>nd</sup> containment requirements for which they are intended to meet.</li><li>Do not count toward storage capacity. (67 FR 47081)</li></ul>
	<i>No inherent storage:</i> Exempt from all SPCC requirements (112.1(d)(6)).	<i>No Inherent Storage:</i> <ul style="list-style-type: none"><li>Subject to applicable 2<sup>nd</sup> containment requirements for which they are intended to meet.</li></ul>

# Oil/Water Separators (cont.)

## Recovered Oil:

- ◆ Recovered oil from the wastewater treatment process placed in a storage container is subject to all applicable requirements of §112-including §112.8(c).

# Oil/Water Separators

## Summary

- ◆ Oil/water separator is a general term widely applied in industry
- ◆ Applicable requirements based on:
  - Design of the separator
  - Intent
- ◆ Recovered oil in a separate bulk storage container is subject to §112-including §112.8(c)

# Integrity Testing

Issue: Integrity testing requirements at §112.8(c) apply to all containers  $\geq 55$  gallons, including drums and totes.

EPA Response: Our goal is to communicate the general framework for upcoming guidance building upon the settlement terms.

# Integrity Testing

## Applicable Rule Provisions:

- ◆ **§112.8(c)(6)** Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of and type of testing must take into account container size and design (such as floating roof, skid\_mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non\_destructive shell testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.



# Integrity Testing (cont.)

Integrity testing of containers, both field-erected and shop-built tanks, is required by 112.8(c)(6).

- ❖ **Summary:** Test via visual examination plus a non-destructive evaluation (NDE) testing technique on a regular schedule and perform frequent inspections of the outside of the containers for signs of deterioration, discharges, or accumulation of oil inside diked areas.
- ❖ **Environmental Equivalence:** Requirement subject to environmental equivalence provision at 112.7(a)(2). Settlement of litigation provided presumptive statements regarding environmental equivalence related to integrity testing of shop-built tanks up to 30,000 gallons capacity.

# Integrity Testing (cont.)

## ◆ General Framework of Guidance to EPA Regions:

- Guidance to present options that may constitute environmental equivalence per §112.7(a)(2) for integrity testing of **shop-built** containers. Environmental equivalence must be clearly documented in the SPCC Plan in accordance with §112.7(a)(2).
- For single-use containers, such as 55-gallon drums and totes of various sizes, the facility owner/operator may conduct frequent visual inspections of the outside of the containers for signs of deterioration, discharges, or accumulation of oil inside diked areas. See Preamble at 67 FR 47120.

# Integrity Testing (cont.)

- EPA recognizes the challenges a facility may face for implementation of an integrity testing program where baseline conditions of the tanks, whether field-erected or shop-built, are not known. We intend to include guidance to the Regions in the area of “baselining” of tanks for period leading up to the development of a “regular” integrity testing schedule.

# Mobile/Portable Containers

◆ Issue: The applicability of bulk secondary containment to mobile/portable oil storage containers

◆ EPA Response:

- The Agency will consider proposed rule changes for the applicability of the sized secondary containment provisions under §112.8(c)(11) for mobile or portable oil storage containers.

# Mobile/Portable Containers (cont.)

## Applicable Rule Provisions:

- ◆ **§112.7(c)** Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.
- ◆ **§112.8(c)(11)** Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). You must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

# Process Vessels

- ◆ Issue: How are processing activities regulated?
  - “Except as provided in paragraph (d) of this section, this part applies to any owner or operator of a non-transportation related onshore or offshore facility engaged in drilling, producing, gathering, storing, **processing**, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful...”§112.1(b) [emphasis added]
- ◆ EPA Response: Clarify the requirements for process vessels and communicate proposed rulemaking.

# Process Vessels (cont.)

## Capacity

- ◆ “The keys to the definition [of storage capacity] are the availability of the container for drilling, producing, gathering, storing, **processing**, refining, transferring, distributing, using, or consuming oil, and whether it is available for one of those uses or whether it is permanently closed. Containers available for one of the above described uses count towards storage capacity, those not used for these activities do not.” [emphasis added] (67 FR 47081 (July 17, 2002))

# Process Vessels (cont.)

## Applicable Rule Provisions:

- ◆ **§112.2** Bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.
- ◆ **§112.7(a)(3)** Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container... You must also address in your Plan:
  - ...**(i)** The type of oil in each container and its storage capacity;
  - ...**(ii)** Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.)
  - ...**(iii)** Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge...



# Process Vessels (cont.)

## Applicable Rule Provisions:

- ◆ **§112.7(c)** Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.
- ◆ **§112.8(c)(6)** Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. ...You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

# Process Vessels (cont.)

## Bulk storage container provisions (excluding production facilities)

- ◆ Could be interpreted as subject to 112.2 Bulk storage definition
  - The Agency will consider proposed rulemaking for process vessels (excluding production facilities) for the applicability of the bulk storage container provisions under §112.8(c).
- ◆ May consider treating analogously to oil-filled electrical and operational equipment.

# Process Vessels (cont.)

Diagram:

- ◆ The Agency may be able to clarify through guidance the level of detail required for process vessels on a facility diagram as required under §112.7(a)(3)

# Piping

- ◆ Issue: Current rule unclear on treatment of piping
- ◆ Our Response: The Agency will consider proposed rulemaking to clarify applicable rule provisions for facility piping.

# Piping (cont.)

## Applicable Rule Provisions:

- ◆ **§112.7(a)(3)** Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container... You must also address in your Plan:
  - ...**(i)** The type of oil in each container and its storage capacity;
  - ...**(ii)** Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.)
  - ...**(iii)** Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge...
- ◆ **§112.7(c)** Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.

# Piping (cont.)

## Applicable Rule Provisions:

◆ **§112.7(d)** If you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:

- (1) An oil spill contingency plan following the provisions of part 109 of this chapter.
- (2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

# Piping (cont.)

## Applicable Rule Provisions:

- ◆ **§112.8(d)** Facility transfer operations, pumping, and facility process.
  - **(1)** Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.
  - **(4)** Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

# Piping (cont.)

## Applicable Rule Provisions:

- ◆ **§112.9(d)** Facility transfer operations, oil production facility.
  - **(1)** Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.
  - **(3)** Have a program of flowline maintenance to prevent discharges from each flowline.



# Piping (cont.)

## General types of facility piping:

- ◆ Transfer piping from bulk storage not connected to a process, both aboveground and buried.
- ◆ Transfer piping associated with a process (also generally called process piping), both aboveground and buried.
- ◆ Flowlines and transfer lines at a production facility, mostly aboveground, but some buried piping may exist.

# Piping (cont.)

## Characterize Piping

- ◆ The Agency will consider proposed rulemaking to clarify the applicability of SPCC provisions relative to piping.
  - Secondary containment
  - Cathodic protection
  - Storage capacity

# Secondary Containment

- ◆ Issue: Unclear how to apply the various secondary containment provisions
- ◆ EPA Response:
  - To clarify the relationship between various secondary containment provisions.
  - The Agency may consider proposed rulemaking to clarify relationship between undiked areas (§ § 112.8(b)(3) and (b)(4)) and secondary containment requirements.

# Secondary Containment (cont.)

## Applicable Rule Provisions:

- ◆ **§112.7(a)(3)** Describe in your SPCC Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each container... You must also address in your Plan:
  - **...(iii)** Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge...
- ◆ **§112.7(c)** Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b). The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.

# Secondary Containment (cont.)

## Applicable Rule Provisions:

◆ **§112.7(d)** If you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2), and 112.14(c) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:

- (1) An oil spill contingency plan following the provisions of part 109 of this chapter.
- (2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

# Secondary Containment (cont.)

## Applicable Rule Provisions:

- ◆ **§112.8(c)(2)** Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.
- ◆ **§112.8(c)(11)** Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). You must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

# Secondary Containment (cont.)

## Applicable Rule Provisions:

- ◆ **§112.9(c)(2)** Provide all tank battery, separation, and treating facility installations with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.
- ◆ **§112.10(c)** Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

# Questions?



## **The EPA Oil Program Website**

*<http://www.epa.gov/oilspill>*

## **The RCRA, Superfund & EPCRA Call Center**

**1-800-424-9346**

